

## **REMARKS**

The present Amendment is in response to the Examiner's Office Action mailed April 10, 2007. Claim 20 was previously canceled. Claims 1, 22, 25, 29 and 30 are amended. Claims 1-19 and 21-31 are pending.

Reconsideration of the application is respectfully requested in view of the above amendments to the claims and the following remarks. For the Examiner's convenience and reference, Applicant's remarks are presented in the order in which the corresponding issues were raised in the Office Action.

### **I. General Considerations**

Applicant notes that the remarks presented herein have been made merely to clarify the claimed embodiments from elements purported by the Examiner to be taught by the cited reference. Such remarks, or a lack of remarks, are not intended to constitute, and should not be construed as, an acquiescence, on the part of the Applicant: as to the purported teachings or prior art status of the cited references; as to the characterization of the cited references advanced by the Examiner; or as to any other assertions, allegations or characterizations made by the Examiner at any time in this case. Applicant reserves the right to challenge the purported teaching and prior art status of the cited references at any appropriate time.

In addition, the remarks herein do not constitute, nor are they intended to be, an exhaustive enumeration of the distinctions between any cited references and the claimed invention. Rather, the distinctions identified and discussed herein are presented solely by way of example. Consistent with the foregoing, the discussion herein is not intended, and should not be construed, to prejudice or foreclose contemporaneous or future consideration, by the Applicant, of additional or alternative distinctions between the claims of the present application and the references cited by the Examiner, and/or the merits of additional or alternative arguments.

### **II. Claim Rejections Under 35 U.S.C. § 103**

The Office Action rejected claims 1-19 and 21-31 under 35 U.S.C. § 103(a) as being unpatentable over United States Pre-Grant Pub. No. 2004/0208207 to Kasper et al. ("*Kasper*") in view of United States Pre-Grant Pub. No. 2006/0226930 to Carvalho et al. ("*Carvalho*"). Applicant respectfully traverses the rejection at least because the Examiner has not established

that the prior art references, whether considered individually or in combination, teach or suggest all the claim limitations.

According to MPEP section 2143:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

In the rejection of the claims, the Examiner has conceded that "...Kasper et al. do not disclose that the transmission lines configured such that impedance of the transmission lines gradually changes over the length so that the tapered transmission lines match the impedance of the driver circuit at the first end and match the impedance of the light emitter at the second end." However, the Examiner asserts that this defect is remedied by *Carvalho*, which purportedly discloses "...use of tapered lines for impedance matching having the impedance of the transmission lines gradually changes over the length..." As to the purported disclosure of *Carvalho*, the Examiner has asserted that "...it would have been obvious to...replace the transmission line or impedance matching resistors of Kasper et al with that of tapered transmission lines of Carvalho et al." and that one of skill "...would have been motivated to provide such impedance matching transmission line in order to provide impedance matching devices with small geometrical devices which further provide improved operational bandwidths and low dispersion." See Office Action, p. 3, 7-11, 13, 14. For at least the reasons set forth below, Applicant respectfully disagrees.

At the outset, Applicant respectfully notes that the Examiner has failed to specifically identify which element(s) of *Carvalho* are purported to correspond with the "transmission lines" recited in the claims and, instead, simply relies on a vague reference to Fig. 1 and paragraph [0030] of *Carvalho* in support of the rejection. Therefore, the Examiner has failed to specifically identify what the Examiner believes to constitute the purportedly obvious combination.

In this regard, Applicant notes that “In rejecting claims for want of novelty or for obviousness, the examiner must cite the best references at his or her command. When a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable. The pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified.” 37 CFR 1.104. *Emphasis added*. Moreover, “[t]he goal of examination is to clearly articulate any rejection early in the prosecution process so that the applicant has the opportunity to provide evidence of patentability and otherwise reply completely at the earliest opportunity.” MPEP § 706. Applicant respectfully submits that, as indicated above, the rejection fails to comport with these guidelines and should, for at least that reason, be withdrawn.

Notwithstanding the failure of the Examiner to specifically identify which element(s) of *Carvalho* are purported to correspond with the claimed “transmission lines,” Applicant respectfully submits that the Examiner has failed in any event to establish that *Carvalho* discloses “transmission lines” such as are recited in the claims.

For example, while it may be the position of the Examiner that the “conducting strip” denoted by reference numeral 12 (see, e.g., paragraph [0027]) of *Carvalho* corresponds with the claimed “transmission lines.” However, the Examiner has not established that “conducting strip 12” of *Carvalho* is “tapered” or that it constitutes “transmission lines” (emphasis added), as recited in claims 1 and 15. Moreover, while element 12 of *Carvalho* is referred to as a “transmission line” in some instances (see paragraph [0033]), it is also referred to as a “conducting strip” (paragraph [0027]) and a “center strip” (paragraph [0027]). Thus, *Carvalho* appears to be somewhat equivocal as to what is considered, in that reference, to constitute a “transmission line.”

Claims 22, 25, 29, and 30, although of different scope, include similar recitations. For example, claim 22 recites, among other things: “a transmission line comprising first and second lines...the first and second lines being spaced apart from each other such that a first distance between the respective first ends of the first and second lines is different from a second distance between the respective second ends of the first and second lines.” (Emphasis added.) Claim 25 recites, among other things: “a transmission line comprising a first line and a second line...the first and second lines configured such that: a first end of the first line has a different cross-sectional size than a cross-sectional size of a second end of the first line; and a first end of

the second line has a different cross-sectional size than a cross-sectional size of a second end of the second line.” (Emphasis added.) Claim 29 recites, among other things: “a transmission line that includes first and second lines, each of the first and second lines including a first end coupled to the driver circuit and a second end coupled to the light emitting source, and a material composition of the transmission line varying over a length of the transmission line.” (Emphasis added.) Claim 30 recites, among other things: “a transmission line that includes first and second lines...and a ground plane...being arranged such that a first distance between the ground plane and the transmission line at the driver circuit is different from a second distance between the ground plane and the transmission line at the light emitting source.” (Emphasis added.)

As in the case of claims 1 and 15 however, the Examiner has failed to specifically identify, with respect to claims 22, 25, 29 and 30, which element(s) of *Carvalho* is/are purported to correspond to the claimed “transmission lines.” Rather, and as noted above, the Examiner has simply relied on a single vague reference to Figure 1 and paragraph [0030] of that reference, thus leaving the Applicant to guess at the views of the Examiner with respect to the purported correspondence between *Carvalho* and the claimed invention.

Thus, even if the references are combined, in a manner as yet unspecified by the Examiner, the resulting combination fails to include all the limitations of the rejected claims. The rejection stated by the Examiner is problematic for other reasons as well.

For at least the foregoing reasons, Applicant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness with respect to claims 1, 15, 22, 25, 29, and 30, and corresponding dependent claims 2-14, 16-19, 21-24, 26-28, and 31. The rejection of such claims should accordingly be withdrawn.

**CONCLUSION**

In view of the remarks submitted herein, Applicant respectfully submits that each of the pending claims 1-19 and 21-31 is in condition for immediate allowance. Therefore, reconsideration of the rejections is requested and allowance of those claims is respectfully solicited. In the event that the Examiner finds any remaining impediment to a prompt allowance of this application that could be clarified in a telephonic interview, the Examiner is respectfully requested to initiate the same with the undersigned attorney.

Dated this 3<sup>rd</sup> day of August 2007.

Respectfully submitted,

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